

DC351 HD Cable Set Top Box

## **User Guide**

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# 1 Safety information

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This section contains important information about the operation of your device. It also contains information about how to use the device safely. Read this information carefully before using your device.

## Areas with flammables and explosives

- Do not use the device where flammables or explosives are stored (in a gas station, oil depot, or chemical plant, for example). Using your device in these environments increases the risk of explosion or fire. In addition, follow the instructions indicated in text or symbols.
- Do not store or transport the device in containers with flammable liquids, gases, or explosives.

## Operating environment

- Avoid dusty, damp, or dirty environments. Avoid magnetic fields. Using the device in these environments may result in circuit malfunctions.
- Before connecting and disconnecting cables, stop using the device and disconnect it from the power supply. Ensure that your hands are dry during operation.
- Place the device on a stable surface.
- Keep the device away from electronic appliances that generate strong magnetic or electric fields, such as a microwave oven or refrigerator.
- During thunderstorms, power off your device and remove all cables connected to it to protect against lightning strikes.
- Do not use your device during thunderstorms to protect your device against any danger caused by lightning.
- Ideal operating temperatures are 0 °C to 40 °C. Extreme heat or cold may damage your device or accessories.
- Keep the device and accessories in a well-ventilated and cool area away from direct sunlight. Do not enclose or cover your device with towels or other objects. Do not place the device in a container with poor heat dissipation, such as a box or bag.
- To protect your device or accessories from fire or electrical shock hazards, avoid rain and moisture.
- Keep the device away from sources of heat and fire, such as a heater, microwave oven, stove, water heater, radiator, or candle.

- Do not place any object, such as a candle or a water container, on the device. If any foreign object or liquid enters the device, immediately stop using it, power it off, and remove all cables connected to it. Then, contact an authorized service center.
- Observe local laws and regulations, and respect the privacy and legal rights of others.
- Do not block device openings. Reserve a minimum of 10 cm around the device to dissipate heat.
- Stop using your device or applications for a while if the device is overheated. If skin is exposed to an overheated device for an extended period, low temperature burn symptoms, such as red spots and darker pigmentation, may occur.
- Do not allow children or pets to bite or suck the device or accessories. Doing so may result in damage or explosion.

## **Safety of Children**

Comply with all precautions with regard to child's safety. Letting children play with the device or its accessories may be dangerous. The device includes detachable parts that may present a choking hazard. Keep away from children.

## **Accessories**

- Using an unapproved or incompatible power adapter, charger or battery may cause fire, explosion or other hazards.
- Choose only accessories approved for use with this model by the device manufacturer. The use of any other types of accessories may void the warranty, may violate local regulations and laws, and may be dangerous. Please contact your retailer for information about the availability of approved accessories in your area.

## **Power adapter safety**

- The power plug is intended to serve as a disconnect device.
- For pluggable devices, the socket-outlet shall be installed near the devices and shall be easily accessible.
- Unplug the power adapter from electrical outlets and the device when not in use.
- Do not drop or cause an impact to the power adapter. If it is damaged, take it to an authorized service center for inspection.

- If the power cable is damaged (for example, the cord is exposed or broken), or the plug loosens, stop using it at once. Continued use may lead to electric shocks, short circuits, or fire.
- Do not touch the power cord with wet hands or pull the power cord to disconnect the power adapter.
- Do not touch the device or the power adapter with wet hands. Doing so may lead to short circuits, malfunctions, or electric shocks.
- If your power adapter has been exposed to water, other liquids, or excessive moisture, take it to an authorized service center for inspection.

## **Battery safety**

- Do not connect battery poles with conductors, such as keys, jewelry, or other metal materials. Doing so may short-circuit the battery and cause injuries or burns.
- Keep the battery away from excessive heat and direct sunlight. Do not place it on or in heating devices, such as microwave ovens, stoves, or radiators. Batteries may explode if overheated.
- Do not attempt to modify or remanufacture the battery, insert foreign objects into it, or immerse or expose it to water or other liquids. Doing so may lead to fire, explosion, or other hazards.
- If the battery leaks, ensure that the electrolyte does not make direct contact with your skins or eyes. If the electrolyte touches your skins or splashes into your eyes, immediately flush with clean water and consult a doctor.
- In case of battery deformation, color change, or overheating while storing, immediately stop using the device and remove the battery. Continued use may lead to battery leakage, fire, or explosion.
- If the battery is improperly replaced, it may explode. Replace the battery with the same or equivalent type only.
- Do not put batteries in fire as they may explode. Damaged batteries may also explode.
- Dispose of used batteries in accordance with local regulations. Improper battery use may lead to fire, explosion, or other hazards.
- Do not allow children or pets to bite or suck the battery. Doing so may result in damage or explosion.
- Do not smash or pierce the battery, or expose it to high external pressure. Doing so may lead to a short circuit or overheating.

- Do not drop the device or battery. If the device or battery is dropped, especially on a hard surface, and may be damaged.

## **Cleaning and maintenance**

- During storage, transportation, and operation of the device, keep it dry and protect it from collision.
- Keep the device and accessories dry. Do not attempt to dry it with an external heat source, such as a microwave oven or hair dryer.
- Do not expose your device or accessories to extreme heat or cold. These environments may interfere with proper function and may lead to fire or explosion.
- Avoid collision, which may lead to device malfunctions, overheating, fire, or explosion.
- If the device is not going to be used for an extended period of time, power it off, and remove all cables connected to it.
- If anything unusual occurs (for example, if the device emits smoke or any unusual sound or smell), immediately stop using it, power it off, remove all cables connected to it, and contact an authorized service center.
- Do not trample, pull, or excessively bend any cable. Doing so may damage the cable, causing the device to malfunction.
- Before you clean or maintain the device, stop using it, stop all applications, and disconnect all cables connected to it.
- Do not use any chemical detergent, powder, or other chemical agents (such as alcohol and benzene) to clean the device or accessories. These substances may cause damage to parts or present a fire hazard. Use a clean, soft, and dry cloth to clean the device and accessories.
- Do not dismantle or remanufacture the device and its accessories. This voids the warranty and releases the manufacturer from liability for damage. In case of damage, contact an authorized service center for assistance or repair.
- If the device screen is broken in a collision, immediately stop using the device. Do not touch or attempt to remove the broken parts. Promptly contact an authorized service center.

## **Environmental protection**

- The device and its accessories (if included), such as the power adapter, headset, and battery should not be disposed of with household garbage.

- Disposal of the device and its accessories is subject to local regulations. Support proper collection and recycling.

## **FCC Regulatory Compliance**

### FCC statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Caution: Any changes or modifications to this device not expressly approved by Huawei Technologies Co., Ltd. for compliance could void the user's authority to operate the equipment.

This device is intended to be attached to a receiver that is not used to receive over-the-air broadcast signals. Connection of this device in any other fashion may cause harmful interference to radio communications and is in violation of the FCC Rules, part 15.

## 2 Packing List

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The following table lists the accessories in the product package.

| No. | Item           | Quantity |
|-----|----------------|----------|
| 1   | Set-Top Box    | 1        |
| 2   | Remote control | 1        |
| 3   | AAA batteries  | 2        |
| 4   | Power adapter  | 1        |
| 5   | RF cable       | 1        |
| 6   | AV cable       | 1        |
| 7   | HDMI cable     | 1        |
| 8   | User Guide     | 1        |

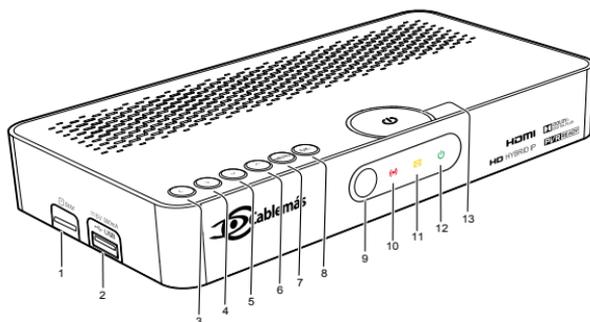


If you find any item missing or damaged, contact your service provider.

## 3 Panels

The figures of the set-top box (STB) shown in the following sections are only for your reference. The actual appearance may differ slightly from that shown depending on the product you purchased.

### 3.1 Front Panel

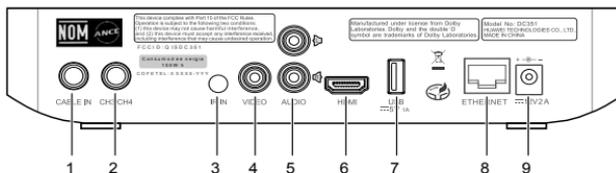


| No. | Item                            | Description  |
|-----|---------------------------------|--|
| 1   | SIM slot                        | House a smart card that enables you to watch programs.   |
| 2   | USB interface                   | Connect a USB storage device.  |
| 3~4 | Left/Right button               | <ul style="list-style-type: none"><li>● Move the cursor left or right in a menu.</li><li>● Adjust the volume in the viewing mode.</li></ul>      |
| 5~6 | Up/Down button                  | <ul style="list-style-type: none"><li>● Move the cursor up or down in a menu.</li><li>● Change the channel in the viewing mode.</li></ul>        |
| 7   | MENU button                     | <ul style="list-style-type: none"><li>● Display the main menu in the viewing mode.</li><li>● Return to the previous screen in a menu.</li></ul>  |
| 8   | OK button                       | Confirm a selected option.   |
| 9   | Remote control signal receiver  | Receive the remote control's infrared signal.  |
| 10  | Remote control signal indicator | Flash red when the STB receives the remote control's infrared signal.  |
| 11  | Message indicator               | Turn yellow when the STB receives a message.   |
| 12  | Standby indicator               | <ul style="list-style-type: none"><li>● Turn green when the STB is in active mode.</li><li>● Turn red when the STB is in standby mode.</li></ul> |
| 13  | Standby button                  | Switch the STB between active and standby modes.   |



- The maximum voltage/current output from the USB port is 5 V/500ma. That is, the input voltage/current of the USB device connected to the USB port cannot exceed 5 V/1 A. Otherwise; the device may not work correctly.

## 3.2 Rear Panel



| No. | Item                       | Description  |
|-----|----------------------------|--|
| 1   | <b>CABLE IN</b> interface  | Connect a satellite antenna cable to the STB to receive satellite signals.   |
| 2   | <b>CH3/CH4</b> interface   | Connect the coaxial cable to the STB to send analog video signals to your TV.  |
| 3   | <b>IR IN</b> interface     | Connect the infrared extension cable.  |
| 4   | <b>VIDEO</b> interface     | Connect the video cable to the STB to send analog video signals to your TV.  |
| 5   | <b>AUDIO L/R</b> interface | Connect the audio cable to the STB to send analog audio signals to your TV or other audio devices.                         |
| 6   | <b>HDMI</b> interface      | Connect a High-Definition Multimedia Interface (HDMI) cable to the STB to send digital audio and video signals to your TV. |
| 7   | <b>USB</b> interface       | Connect a USB storage device.  |
| 8   | <b>ETHERNET</b> interface  | Non.   |
| 9   | Power interface            | Connect the power adapter to the STB.  |



- The maximum voltage/current output from the USB port is 5 V/1 A. That is, the input voltage/current of the USB device connected to the USB port cannot exceed 5 V/1 A. Otherwise; the device may not work correctly.

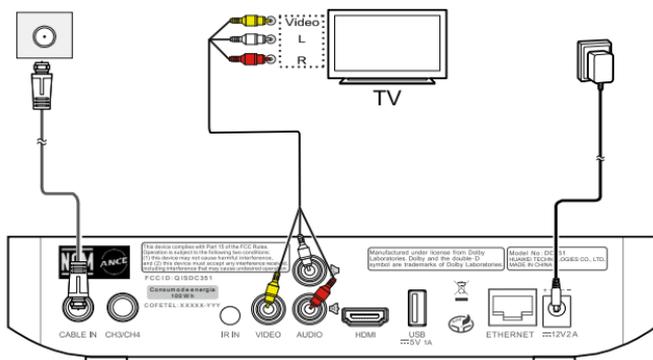
# 4 Connecting Cables



- Before connecting or disconnecting a cable, power off the STB, TV and all the devices connected to them.
- Before connecting, check that all the necessary cables are available. Then connect the cables as shown in the following figures.
- Do not plug or unplug a cable when a device is powered on.
- The figures shown in the following sections are only for your reference. The actual appearance may differ slightly from that shown depending on the product you purchased.

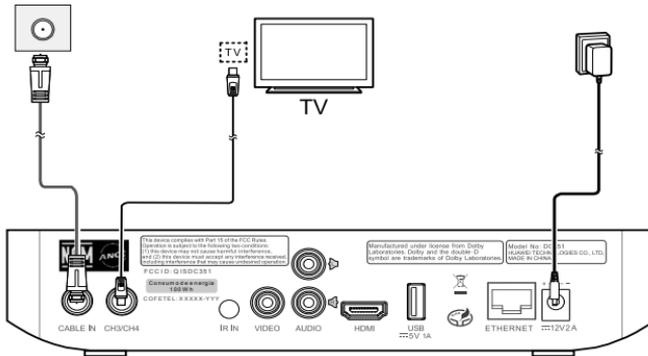
There are three manners to connect the STB and your TV, depends on the components that you intend to connect and the desired signal quality and the styles of your TV.

## 4.1 Using the AV Cable



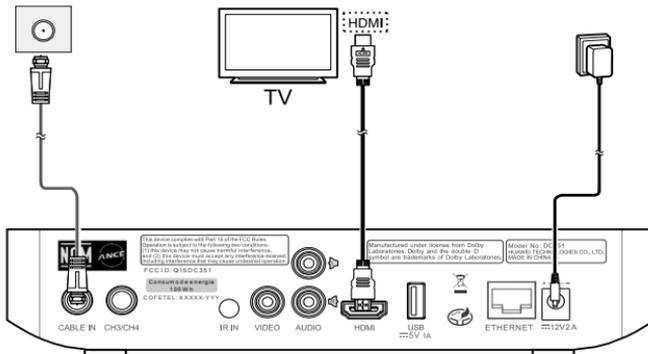
- Step 1** Using a coaxial cable, connect **CABLE IN** interface on the STB to the cable TV interface on the wall.
- Step 2** Connect the AV cable's yellow, white, and red connectors at one end to the STB's **VIDEO**, **AUDIO L**, and **AUDIO R** interfaces respectively.
- Step 3** Connect the video and audio cable's yellow, white, and red connectors at the other end to your TV's corresponding video and audio interfaces.
- Step 4** Use the power adapter to connect the STB's power interface to a working power socket, extension cord or surge protector.

## 4.2 Using the Coaxial Cable



- Step 1** Using a coaxial cable, connect **CABLE IN** interface on the STB to the cable TV interface on the wall.
- Step 2** Connect one end of a coaxial cable to the STB's **CH3/CH4** interface.
- Step 3** Connect the other end of the coaxial cable to your TV's TV interface.
- Step 4** Use the power adapter to connect the STB's power interface to a working power socket, extension cord or surge protector.

## 4.3 Using the HDMI Cable



- Step 1** Using a coaxial cable, connect **CABLE IN** interface on the STB to the cable TV interface on the wall.
- Step 2** Connect one end of an HDMI cable to the STB's **HDMI** interface.

- Step 3** Connect the other end of the HDMI cable to your TV's HDMI interface.
- Step 4** Use the power adapter to connect the STB's power interface to a working power socket, extension cord or surge protector.

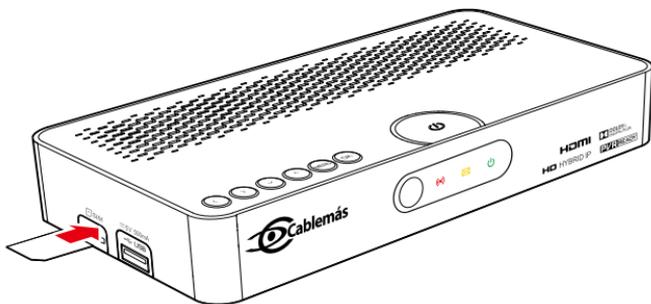
## 5 Inserting the SIM Card

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To prevent damage to the STB or the SIM card:

- Do not insert or remove the SIM card when STB is powered on.
- Do not frequently insert or remove the smart card.



**Step 1** Record the serial number that appears in the back of your SIM card.

**Step 2** Call the local service providers to activate the service.

**Step 3** Insert the SIM card.

Insert the SIM card with the metal chip facing downwards into the SIM card slot of the STB.

## 6 Troubleshooting

The following table lists the common STB problems and their possible causes and solutions.

| Problem  | Possible Cause   | Solution   |
|--|--|--|
| The standby indicator on the front panel does not turn on. | The power adapter is not correctly connected.  | Correctly connect the power adapter to the STB, and then plug the power adapter into a power outlet. |
| There is no audio or video when the STB is powered on.     | The video and audio cable is not correctly connected.  | Use the video and audio cable to connect the STB to your TV correctly.                               |
|  | The antenna is not correctly connected.  | Correctly connect the antenna.   |
|  | The TV is powered off.   | Power the TV on.   |
|  | The HDMI cable is not correctly connected.   | Correctly connect the HDMI cable.  |
|  | The STB is in standby mode.  | Press the <b>STANDBY</b> key on the STB's remote control.  |
| When the STB is powered on, there is no signal.            | The STB cannot receive satellite signals.  | Correctly connect the antenna cable. If the problem persists, change the cable.                      |
|  |  | Adjust the location of the antenna by following the instruction.                                     |
| The remote control does not work.                          | No battery is installed in the remote control, or the batteries in the remote control have run out of power. | Correctly install batteries in the remote control. If the problem persists, change the batteries.    |
| Pop-up Tip: the password is incorrect                      | Forget the new password.   | Please contact the local service provider.   |
| Pop-up Tip: not authorized                                 | The smart card not authorized currently viewing the program.   | Please contact the local service provider.   |
| Pop-up Tip:  | Televue Rating of the  | Please change the Televue  |

| <b>Problem</b>   | <b>Possible Cause</b>                                  | <b>Solution</b>   |
|--|--|---|
| Television Rating is not enough  | smart card is set too low.                             | Rating.   |
| Pop-up Tip: STB is not in working hours  | The time is not on the working hours of smart card.    | Please change the working hours of the smart card.  |
| STB automatically enter the upgrade interface When you open STB.                         | The software of STB has been damaged                   | Please contact the local service provider.  |
| The language of television programs is not the native language (multi-language programs) | The language setting is not the correct.               | Press <b>LANG</b> to change the language.   |
| The video quality is poor.   | Signal loss by the cable.                              | Install the antenna in a place free of obstacles.   |
| Less channels in scanning.   |  | Keep the power and the antenna cable for the satellite apart from each other.<br>Check the signal level, and adjust the antenna position if the level is too low.<br><b>NOTE</b><br>The signal level may be affected by weather conditions. |
| Cannot use the USB storage device.   | Incompatible or not connect right.                     | Restart the STB.  |
|  |  | Format the USB storage device on the STB.   |
| Cannot record programs.  | The USB storage device is full.                        | Delete unnecessary programs and make space for new recording.   |
|  | Check if recording is conflicted with another channel. | Stop the current recording or wait until the recording is finished.   |

# 7 Specifications

The product specifications are subject to changes without notification.

## Tuner and Demodulator

| Parameter             | Specifications  |
|-----------------------|---|
| Input Frequency Range | 47 MHz to 862 MHz                                       |
| Input voltage level   | 33 dBuV – 100 dBuV (64QAM)                              |
| Input Impedance       | 75 $\Omega$   |
| Modulation            | 64, 256 QAM   |
| Symbol Rate           | 64 QAM : 5.057 M symbols/s<br>256 QAM: 5.361 M symbols/ |

## MPEG Transport Stream A/V Decoding

| Parameter                | Specifications   |
|--------------------------|--|
| Transport Stream         | MPEG1,MPEG2 MP@ML/HL;<br>H.264 HP/MP@L4.1; VC-1;DivX                                 |
| Video                    | 1080p50(60)/1080i/720p/576p/576i/480p/480i   |
| Audio                    | AAC LC, AAC LC+SBR Level 2, AAC+Level,<br>AAC-HE MPEG-1, MPEG-2 Layer 1,2 and 3, AC3 |
| Aspect Ratio             | 4:3 or 16:9  |
| Active Pixel             | 720 $\times$ 480i, 720 $\times$ 480p, 1280 $\times$ 720p, 1920 $\times$ 1080i        |
| Audio Mode               | Mono track, Dual track, Stereo, Joint stereo   |
| Audio Sampling Frequency | 32/44.1/48 kHz   |

## Connector

| Port     | Specifications                      |
|----------|-------------------------------------|
| RF Input | 1, Female F connector, IEC 60169-24 |
| Video    | RCA (CVBS)                          |
| Audio    | RCA (Audio L,R)                     |

## Environmental

| Parameter             | Specifications                |
|-----------------------|-------------------------------|
| Input Voltage         | 100V~240V AC                  |
| Output Voltage        | 12V/2A DC (Power adapter)     |
| Power Consumption     | < 24W                         |
| Dimension (L × W × H) | About 220 mm × 110 mm × 44 mm |
| Weight                | About 0.572 kg                |
| Working Temperature   | 0°C to 45°C                   |
| Working Humidity      | 5% to 90%, non-condensing     |

## Smartcard Interface

| Parameter      | Specifications   |
|----------------|------------------|
| Smartcard Slot | 1-Slot, ISO 7816 |

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If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- 1、 Reorient or relocate the receiving antenna.
- 2、 Increase the separation between the equipment and receiver.
- 3、 Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- 4、 Consult the dealer or an experienced radio/TV technician for help.

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